

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re application of:

ROMAN S. FERBER

Serial No.: 09/833,401

Filed: April 11, 2001

For: AIR BUBBLE MASSAGE BATH MAT SYSTEM

Attorney Docket No.: HOME 0459 PUS

Group Art Unit: 3764

Examiner: Matthew C. Fenn

**AMENDED APPEAL BRIEF**

Mail Stop Appeal Brief - Patents  
Commissioner for Patents  
U.S. Patent & Trademark Office  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

This is an amended appeal brief from the final rejection of claims 1-25 of the Office Action dated June 16, 2005. The amendments include re-labeling the heading of Section VI. This application was filed on April 11, 2001.

**I. REAL PARTY IN INTEREST**

The real party in interest is HoMedics, Inc., a corporation organized and existing under the laws of the state of Michigan, and having a place of business at 3000 Pontiac Trail, Commerce Twp., MI 48390, as set forth in the assignment recorded in the U.S. Patent and Trademark Office on July 12, 2001, at Reel 011975/Frame 0363.

## **II. RELATED APPEALS AND INTERFERENCES**

There are no appeals or interferences known to Appellants, the Appellant's legal representative, or assignee which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

## **III. STATUS OF CLAIMS**

Claims 1-25 are pending in this application. Claims 1-25 have been rejected and are the subject of this appeal.

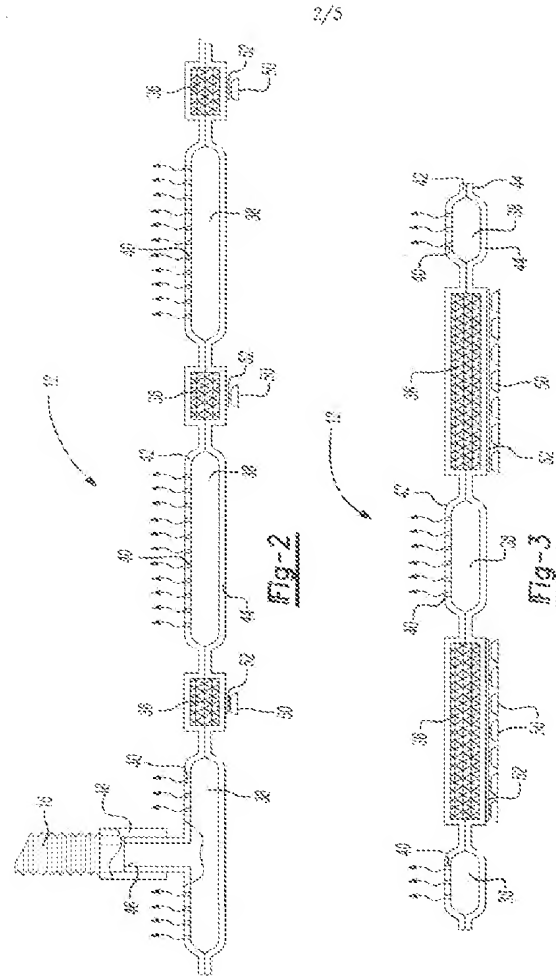
## **IV. STATUS OF AMENDMENTS**

No amendments have been made after final. The pending claims are enclosed in Exhibit A.

## **V. SUMMARY OF THE CLAIMED SUBJECT MATTER**

The Appellant's invention, as recited in independent claims 1, 14, and 20, relates to an air bubble massage bath mat system 10. System 10 includes a bath mat 12 and an air pump 14. The mat 12 is connected to the air pump 14 by a hose 16 that directs compressed air from the air pump 14 into the mat 12. A remote control unit 18 is provided to permit a bather to control a mat controller 32, such as to control the air pump 14. (Page 5, Lines 18-24)

The mat 12 includes a plurality of flexible blocks 36 that are secured or retained within the mat 12. Air passages 38 conduct air from the hose 16 to a plurality of holes 40 through which air is permitted to escape into a bath to provide the massaging action of the bath mat 12 (Page 6, Lines 8-15). Figures 2 and 3 are provided below to show the air passages 38 and the defining thereof by the flexible blocks 36.



The mat 12 is formed by top and bottom sheets 42, 44 of flexible material that are bonded together about their periphery and around the flexible blocks 36 to form the air passages 38. The blocks 36 provide cushioning to a bather. The flexible blocks 36 are sealed about their periphery by the top and bottom sheets 42, 44 to seal the flexible blocks from water contact. In addition, the sealed flexible blocks 36 define the air passages 38 at spaced locations adjacent the air passage 38, as shown in Figures 2 and 3. (Page 6, Lines 15-19)

Independent claim 1 relates to an air bubble massage bathtub mat system 10 for a bather in a tub. The system 10 includes an air pump 14 that provides a source of compressed air to a mat 12 having at least one air passage 38 and a plurality of outlet holes 40. A hose 16 connects the air pump 14 to the air passage 38 in the mat 12. (Figure 1, Pages 5-6, Lines 18-20) A controller 106 controls operation of the air pump 14. (Page 8, Lines 4-10) A remote control unit 18 communicates with the controller 106 while the bather remains in the tub and while not being physically connected to the controller 106 and electrically isolated from the controller power supply 102. (Figures 8, 9, Page 8, Lines 4-25, Page 9, Lines 9-27)

Independent claim 14 relates to an air bubble massage bath mat 12 for an air bubble massage system 10 that provides compressed air to the mat 12 when the mat 12 is disposed in a bathtub. The mat 12 includes a flexible member having at least two layers 42, 44 defining a plurality of air passages 38. The mat 12 further includes a receptacle 46 through which the compressed air is provided to the air passages. The mat 12 includes a plurality of air holes 40 formed in the air passages 38 through which compressed air is emitted from the air passages 38 into the bathtub. The mat 12 also includes a plurality of flexible blocks 36 secured between the layers 42, 44 defining the plurality of air passages 38 and its base location adjacent the air passages 38 is sealed between the layers 42, 44 to prevent water contact with the blocks. (Figures 1, 2, Page 6, Lines 7-30)

Independent claim 20 relates to an air bubble massage bath mat 12 for an air bubble massage system 10 that provides compressed air to the mat 12. The mat includes a flexible member having at least two layers 42, 44 defining a plurality of air passages 38. The mat includes a receptacle 46 through which the compressed air is provided to the air passages 38. The mat includes a plurality of air holes 40 formed in the air passages 38 through which compressed air is emitted from the air passages 38. The mat includes at least one foam member 36 sandwiched and sealed between the layers 42, 44 defining the plurality of air

passages 38 to prevent water contact with the foam member 36. (Figures 1, 2, and 3, Page 6, Lines 8-30)

## **VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL**

1. Whether claims 1-7 and 12 are properly rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S.P.N. 4,962,759 to Stern (hereinafter the Stern patent) in view of U.S.P.N. 6,183,430 to Lin (hereinafter the Lin patent) further in view of U.S.P.N. 5,245,714 to Haraga (hereinafter the Haraga patent);

2. Whether claim 11 is properly rejected under 35 U.S.C. § 103(a) as being unpatentable over the Stern patent in view of the Lin patent and the Haraga patent as applied to claim 1 and further in view of U.S.P.N. 5,588,161 to Barrada (hereinafter the Barrada patent);

3. Whether claims 1, 8, and 9 are properly rejected under 35 U.S.C. § 103(a) as being unpatentable over the Lin patent in view of the Haraga patent;

4. Whether claims 12 and 13 are properly rejected under 35 U.S.C. § 103(a) as being unpatentable over the Lin patent in view of the Haraga patent as applied to claim 1 and further in view of U.S.P.N. 5,050,591 to Sandrin (hereinafter the Sandrin patent);

5. Whether claims 14-25 are properly rejected under 35 U.S.C. § 103(a) as being unpatentable over the Sandrin patent in view of U.S.P.N. 3,045,254 to Cook (hereinafter the Cook patent).

## VII. ARGUMENT

### **Issue 1: Rejection of claims 1-7 and 12 under 35 U.S.C. § 103(a) over the Stern, Lin, and Haraga patents**

Claims 1-7 and 12 are rejected as being obvious in view of the teachings of the Stern, Lin, and Haraga patents. The rejected claims include one rejected independent claim, that claim being independent claim 1. Independent claim 1 recites, in part, “a controller for controlling operation of the air pump” and “a remote control unit capable of communicating with the controller while the bather remains in the tub but not being physically connected to the controller and electrically isolated from the controller power supply.”

The Examiner relies upon the Haraga patent to teach the remote control portion of claim 1 noted above. The Haraga patent relates to whirlpools and the Stern and Lin patents relate to bath mats. The Appellants submit that the Haraga patent is non-analogous art to the Stern and Lin patents because it relates to whirlpools while the Stern and Lin patents relate to baths mats. Thus, it is improper to rely on the Haraga patent in rejecting independent claim 1.

The Examiner asserts that the Haraga patent is analogous art for the following reason:

In the present case, in the broadest light, Lin, Stern and Haraga are drawn to remote controlled hydro massage devices. Haraga is relied upon as it solves potential problems of a wired remote control, by substituting a wireless infrared remote control. As such, under the premise of *In re Oetiker*, Haraga is seen as analogous art. (See the Advisory Action mailed March 30, 2004)

The Examiner points to a Federal Circuit case entitled *In re Oetiker*, 977 F.2d 1443, (Fed. Cir. 1992), and relies on the following quotation from the case.

In order to rely on a reference as a basis for rejection of the applicant's invention, the reference must either be in the field of the applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the inventor was concerned.

The Appellants submit that the meaning of the above-quoted portion is better understood if it is placed in the context of the case to which it relates. As such, Applicants have recited below the portion of the Oetiker case which relates to the above-cited portion so that its meaning can be taken in the context of the case.

Patent examination is necessarily conducted by hindsight, with complete knowledge of the applicant's invention, and the courts have recognized the subjective aspects of determining whether an inventor would reasonably be motivated to go to the field in which the examiner found the reference, in order to solve the problem confronting the inventor. We have reminded ourselves and the PTO that it is necessary to consider "the reality of the circumstances",

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--in other words, common sense--in deciding in which fields a person of ordinary skill would reasonably be expected to look for a solution to the problem facing the inventor.

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**It has not been shown that a person of ordinary skill, seeking to solve a problem of fastening a hose clamp, would reasonably be expected or motivated to look to fasteners for garments.** The combination of elements from non-analogous source, in a manner that reconstructs the applicant's invention

only with the benefit of hindsight, is insufficient to present a *prima facie* case of obviousness. **There must be some reason, suggestion, or motivation found in the prior art whereby a person of ordinary skill in the field of the invention would make the combination. That knowledge can not come from the applicant's invention itself.** (Emphasis Added)

The Oetiker case relates to the question of whether one seeking to fasten a hose clamp would be expected to look to fasteners used for fastening garments. Oetiker found that one would not be so motivated, and based on the lack of motivation, that the art was non-analogous. The Applicants submit a similar argument - one endeavoring to solve problems with respect to bath mats would not be expected to look to whirlpools.

Bath mats are removable items which can be easily removed from bath tubs. Both the Stern and Lin patents relate to bath mats, and therefore, are analogous art. The Haraga patent relates to whirlpools. Whirlpools are not removable. One endeavoring to solve problems related to removable bath mats would not look to much larger and non-removable whirlpools to solve the problems. Thus, the Haraga patent is non-analogous art.

Moreover, the Appellants invention relates to problems with respect to the electrical operation of the bath mat, such as possible hazardous shocks to the bather. The Haraga patent is non-analogous art with respect to solving this problem because one endeavoring to solve bath mat electrical problems would not look towards whirlpools. The electrical operation of whirlpools is much more complex and different than the electrical operation of bath mats.

The mere fact that the Lin, Stern, and Haraga patents relate to hydro massage devices does not rescue the Examiner from the non-analogous art argument set forth above. The categorization by the Examiner of the cited references as relating to hydro massage devices is similar to the mistakes made in the Oetiker case where the Examiner attempted to broadly



categorize the problem as relating to fasteners in general, as opposed to the proper categorization of garment fasteners. The court ruled that it was improper to include such a broad categorization for fasteners in general because one seeking to solve a problem with respect to fastening a hose clamp would not be expected to look to garment. Likewise, one seeking to solve a problem with respect to bath mats would not be expected to look to whirlpools.

For the foregoing reasons, the Appellants respectfully submit that the Examiner has relied upon non-analogous art and rendering this rejection. Accordingly, the Appellants respectfully request that this rejection be withdrawn.

**Issue 2: Rejection of Claim 11 under  
35 U.S.C. § 103(a) over the Stern, Lin,  
Haraga, and Barrada patents**

Claim 11 depends from independent claim 1, and include all limitations thereof. The Barrada patent discloses a remote control 76 that is attached by a wire to control a portable foot bath. The Barrada patent fails to teach that the remote control 76 is electrically isolated from a controller of the portable foot bath, as recited in claim 1. Accordingly, claim 11 is patentable at least for the same reasons that claim 1 is patentable.

**Issue 3: Rejection of Claims 1, 8,  
and 9 under 35 U.S.C. § 103(a)  
over the Lin and Haraga patents**

The Appellants hereby incorporate the arguments made above with respect to Issue 1 that demonstrate the non-analogous nature of the Haraga patent. The Appellants

respectfully submit that the non-analogous nature of the Haraga patent renders it unsuitable for rejecting these claims.

**Issue 4: Rejection of Claims 12 and 13 under 35 U.S.C. § 103(a) over the Lin, Haraga, and Sandrin patents**

Claims 12 and 13 depend from independent claim 1, and include all limitations thereof. The Sandrin patent relates to bath mats and not the control of bath mats. The Sandrin patent fails to disclose a remote control that is electrically isolated from a controller of the portable foot bath, as recited in claim 1. Accordingly, claims 12 and 13 are patentable at least for the same reasons that claim 1 is patentable.

**Issue 5: Rejection of Claims 14-25 under 35 U.S.C. § 103(a) over the Sandrin and the Cook patents**

Claims 14-25 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Sandrin and Cook patents. The rejected claims include two independent claims, claims 14 and 20. Independent claim 14 recites, in part, “a plurality of flexible blocks secured between the layers defining the plurality of air passages at spaced locations adjacent the air passages and sealed between the layers to prevent water contact with the blocks.” Independent claim 20 recites, in part, “at least one foam member sandwiched and sealed between the layers defining the plurality of air passages to prevent water contact with the foam member.”

The Appellants submit that there is no motivation to combine the Sandrin and Cook patents.

The Sandrin patent teaches away from any combination with the Cook patent because the Sandrin patent fails to provide any suggestion, motivation, or incentive to include the claimed flexible blocks or foam members, which the Examiner asserts are disclosed by the Cook patent.

The Sandrin patent relates a bath mat 1 having fluid channels 31 to support a bather, whereby the fluid is released from the channels 31 so that the mat 1 can be rolled up for transportation. The Sandrin patent states:

In use, the **first channel 31 is filled with water and/or air**, which is introduced into it through the port 7 after the plug 78 has been removed. When filled, the port 7 is reclosed hermetically by threading the plug 78 onto the tubular element 71.

When the inflow is completed, the resulting fluid inside the channel 31 will not be able to flow out of the port 7, because the pressure inside channel 31 will force the concave element 76 upwardly against the inner surface of the channel 31 so as to seal the port 7.

In order to evacuate the fluid from the channel 31, the plug 78 is removed, and the enlarged part 751 of the peg 75 is pressed downwardly so as to separate the concave element 76 from the inner surface of the channel 31 thereby opening the port 7 sufficiently to permit the outlet of the filling fluid. It is to be noted that the port 7 has been described in accordance with a preferred embodiment, any suitable known arrangements may be utilized so long as they can be easily controlled by the operator, and are capable of releasably blocking the opening in the channel 31.

The filling of the first channel 31 as described above, transforms the inventive mat, in a known manner, into a true and proper soft mattress that may be arranged on the bottom of a bathtub or similar basin, utilized for the purpose of water massage. As

described above, a plurality of cups 6 will be mounted so that the mat will be immovably fixed in the bathtub or basin.

After the mat has been filled with fluid and mounted in the bathtub or basin, the free end of the feeder conduit 4 is then connected to a compressed air generator to provide compressed air which, as stated, may be treated, for example, by suitable ozonization and/or additives consisting of suitable fluids. The compressed air will flow from the feeder conduit 4 into the upper collector 322 so as to feed the longitudinal conduits or spaces 321. From these longitudinal conduits, the compressed air will flow out through the small holes 5, and penetrate into the water contained in the tub or basin so as to create the desired water massage effect.

... In order to empty this first channel 31, the plug 78 must be removed from the tubular element 71 and, as already described, the peg 75 must be pressed downwardly in order to move the concave element 76 downwardly so as to open the port 7 to allow **discharge of the fluid from the first channel 31.** At this point, the **small mat 1 can be rolled up** and the flat flexible pipe 41 wound around the resulting roll

(Column 4-5, Lines 40- 10, emphasis added)

The Cook patent discloses that a layer 64 of compressible material rests against a wall of a bathtub to cushion a bather. The Cook patent states:

The liner 18 is composed of an outer or upper layer 62 of semi-flexible water impervious sheet material, such as the type of plastic materials used in the molding of pails, dishpans, and the like; and **an inner or lower layer 64**, adhered to the layer 62 of compressible material, **such as foam rubber**. The compressible layer 64 is of sufficient cross section and density to provide substantial cushioning for occupants of the tub 16, without undue collapse thereof.

(Column 2, lines 36-34)

The layer 64 is a solid sheet of rubber that stretches across the entire surface area of the bathtub 16. The layer 64 does not define any air passages and it is not sealed between two layers of waterproof flexible material, as recited in independent claims 14 and 20.

Sandrin's use of fluid channels 31 fails to provide any teachings towards including flexible blocks or foam members in the air channels 31, let alone the layer 64 of the Cook patent that covers the entire surface area of the bathtub 16. The use of flexible blocks or foam members would plug the fluid channels 31 and prevent filling and discharging the channels 31 for rolling up and transporting the mat 1, rendering the Sandrin patent unsatisfactory for its intended purpose.

MPEP § 2141.03 states that the proposed modification cannot render the Sandrin patent unsatisfactory for its intended purpose:

**THE PROPOSED MODIFICATION CANNOT RENDER THE  
PRIOR ART UNSATISFACTORY FOR ITS INTENDED  
PURPOSE**

If proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. In re Gordon, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984)

Clearly, modifying the Sandrin patent to include foam or flexible blocks would render the Sandrin patent unsatisfactory for its intended purpose because it would no longer be able to fill the fluid channels with a fluid and discharge the fluid to roll up the mat.

In addition, the teachings of the Sandrin patent teach away from using an rigid material, such a flexible or foam blocks to support the bather. The Background section of the

Sandrin patent expressly teaches away from including foam or flexible blocks, as noted in the portions of the Sandrin patent reproduced below.

Another well known water massage apparatus, which has been in widespread use for some time utilizes an element composed of a grating or **rigid mat** arranged on the bottom of a common bathtub. This element is normally formed of tubular elements, or other differently shaped hollow elements, suitably interconnected with each other. These elements have suitable holes formed therein and are fed with compressed air, so as to generate a plurality of small bubbles in water contained in the tub in order to provide a water massage.

As is known, the various water massage apparatus have, up to now, utilized rigid tubular elements interconnected by either rigid tubular elements or other differently shaped rigid hollow elements.

These prior art apparatus have several drawbacks. For example, the **rigid surfaces** of the apparatus upon which the person being treated must lie cause localized pressures against the person's body, thereby resulting in an unpleasant overall effect. This is often exacerbated because the person is restricted in his movements

(Column 1, Lines 27-46, emphasis added)

For the foregoing reasons, the Appellants respectfully submit that there is no motivation to combine the Sandrin patent with the Cook patent or any other reference that may disclose flexible or foam blocks for supporting a bather because doing so not only renders the Sandrin patent unsatisfactory for its intended purpose, it also goes against the express teachings of the Sandrin patent. Accordingly, the Appellants respectfully request that this rejection be withdrawn.

**Conclusion**

The fee of \$330.00 as applicable under the provisions of 37 C.F.R. § 1.17(c) was previously submitted and is not enclosed. Appellants believe not additional fees are required at this time, however, authorization is provided to charge any additional fee or credit any overpayment in connection with this filing to our Deposit Account No. 02-3978.

Respectfully submitted,

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Enclosure - Appendix

### **VIII. APPENDIX A - CLAIMS ON APPEAL**

1. An air bubble massage bathtub mat system for a bather in a tub comprising:

an air pump that provides a source of compressed air;  
a mat having at least one air passage and a plurality of air outlet holes;  
a hose connecting the air pump to the air passage in the mat;  
a controller for controlling operation of the air pump; and  
a remote control unit capable of communicating with the controller while the bather remains in the tub but not being physically connected to the controller and electrically isolated from the controller power supply.

2. The air bubble massage bathtub mat system of claim 1 wherein the remote control unit has a infrared transmitter that communicates with an infrared receiver in the controller by infrared transmissions.

3. The air bubble massage bathtub mat system of claim 1 wherein the controller has a control panel that has a plurality of switches for controlling air pump.

4. The air bubble massage bathtub mat system of claim 3 wherein the remote control unit has switches for controlling the same functions as the control panel.

5. The air bubble massage bathtub mat system of claim 1 wherein the controller has a switch that controls a heating element for heating compressed air.



6. The air bubble massage bathtub mat system of claim 1 wherein the controller and the remote control unit have switches for controlling massage programs, a timer, a heater and the air pump speed.

7. The air bubble massage bathtub mat system of claim 1 wherein the controller has programmable cycles for varying the speed of operation of the air pump over time to provide variation in the vigorousness of the massage.

8. The air bubble massage bathtub mat system of claim 1 wherein the mat is formed of flexible material that may be rolled up for storage.

9. The air bubble massage bathtub mat system of claim 8 wherein the flexible material includes a soft vinyl material.

10. The air bubble massage bathtub mat system of claim 1 wherein a recess is formed on a housing of the air pump for storing the remote control unit.

11. The air bubble massage bathtub mat system of claim 1 wherein a bracket is provided that is adapted to be secured to a supporting surface for storing remote control unit.

12. The air bubble massage bathtub mat system of claim 1 further including a plurality of suction cups secured to a bottom surface of the mat for providing a detachable connection to the bathtub.

13. The air bubble massage bathtub mat system of claim 12 wherein the suction cups are formed of a composite material including a polymeric material adapted to be secured to the mat and a rubber material adapted to provide a detachable connection to the bathtub.

14. An air bubble massage bathtub mat for an air bubble massage system that provides compressed air to the mat when the mat is disposed in a bathtub comprising:

- a flexible member having at least two layers defining a plurality of air passages;
- a receptacle through which the compressed air is provided to the air passages;
- a plurality of air holes formed in the air passages through which compressed air is emitted from the air passages into the bathtub; and
- a plurality of flexible blocks secured between the layers defining the plurality of air passages at spaced locations adjacent the air passages and sealed between the layers to prevent water contact with the blocks.

15. The air bubble massage bathtub mat for an air bubble massage system of claim 14 wherein the flexible member includes a soft vinyl material.

16. The air bubble massage bathtub mat for a air bubble massage system of claim 14 wherein the at least two layers of the flexible member are polymer sheet material secured together at spaced locations to define the air passages.

17. The air bubble massage bathtub mat for a air bubble massage system of claim 14 wherein the air holes are limited in size and number to provide a flow restriction that causes the air passages to be inflated when compressed air is provided to the air passages.

18. The air bubble massage bathtub mat for a air bubble massage system of claim 14 wherein each of the flexible blocks are enclosed in a sealed chamber formed of polymer sheet material having seams that define the air passages and sealed chambers, wherein the air passages and sealed chambers are separate from each other.

19. The air bubble massage bathtub mat for a air bubble massage system of claim 14 wherein two layers of thermoplastic sheet material are bonded together about the

periphery of the flexible member, the two layers are also bonded together around the flexible blocks and thereby define the air passages in a branched array.

20. An air bubble massage bathtub mat for an air bubble massage system that provides compressed air to the mat, comprising:

a flexible member having at least two layers defining a plurality of air passages;  
a receptacle through which the compressed air is provided to the air passages;  
a plurality of air holes formed in the air passages through which compressed air is emitted from the air passages; and

at least one foam member sandwiched and sealed between the layers defining the plurality of air passages to prevent water contact with the foam member.

21. The air bubble massage bathtub mat for an air bubble massage system of claim 20 wherein the flexible member includes a soft vinyl material.

22. The air bubble massage bathtub mat for an air bubble massage system of claim 20 wherein the at least two layers of the flexible member are polymer sheet material secured together at spaced locations to define the air passages.

23. The air bubble massage bathtub mat for an air bubble massage system of claim 20 wherein the air holes are limited in size and number to provide a flow restriction that causes the air passages to be inflated when compressed air is provided to the air passages.

24. The air bubble massage bathtub mat for an air bubble massage system of claim 20 wherein the at least one foam member is enclosed in a sealed chamber formed of polymer sheet material having seams that define the air passages and sealed chambers, wherein the air passages and sealed chambers are separate from each other.

25. The air bubble massage bathtub mat for an air bubble massage system of claim 20 wherein two layers of thermoplastic sheet material are bonded together about the periphery of the flexible member, the two layers are also bonded together around the at least one foam member and thereby define the air passages in a branched array.

**IX. EVIDENCE APPENDIX**

None

**X. RELATED PROCEEDINGS APPENDIX**

None